Patents Act, 1977

IN THE MATTER of European
Patent (UK) 1 205 027
in the name of
Interessengemeinschaft für
Rundfunkschutzrechte GmbH
Schutzrechtsverwertung & Co. KG

CERTIFICATE

I, DAVID NEVILLE PETERS, Chartered Patent Agent, of Dr. Walther Wolff & Co, 6 Buckingham Gate, London SW1E 6JP, United Kingdom, hereby declare that I am familiar with the German and English languages and I certify that to the best of my knowledge and belief that the following is a true and correct translation into the English language of the specification of the above-mentioned European Patent.

DAVID NEVILLE PETERS

Dated 12 May 2003

DESCRIPTION

The present invention relates to a tuning method for a broadcast receiver, particularly a television signal receiver, wherein at least two reception channels, which are stored in supercessionary manner in a tuning memory, are preset in succession at the broadcast receiver by means of a control unit, wherein the displaced reception channel is stored in a main memory, wherein the reception channel stored in the main memory can be loaded into the tuning memory on the basis of a call-up command, wherein the broadcast receiver is tuned in correspondence with the respective reception channel stored in the tuning memory, wherein a further reception channel, which is stored in the tuning memory, is preset at the broadcast receiver, and wherein the further reception channel is indirectly preset at the broadcast receiver by actuation of a +/- button of the control unit. The present invention further relates to a broadcast receiver corresponding therewith.

Tuning methods and broadcast receivers corresponding therewith are known from, for example, DE 30 42 851 C2 or US-A-4 367 559. The broadcast receivers are known as, in particular, satellite receivers, videorecorders and television apparatus.

A television receiver with a main memory with three storage locations is known from the article "A Systems Approach to Low-Cost Electronic Tuning Address" of B. Howell et al., IEEE Transactions on Consumer Electronics, Vol. CE-24, No. 3, August 1978. Through button pressure on a specific button the user can call up, in rolling succession, the television channels stored in these memory locations. The television channels stored in the three memory locations are in each instance the last set television channels. In the case of selection of a new television channel, this is received in the main memory instead of a stored television channel.

A broadcast receiver with a memory is known from DE 42 25 052 A1, in which the last previously set reception channel or the last previously set reception channels is or are stored and can be called up again therefrom. The storing takes place constantly and inevitably.

In the case of broadcast receivers a so-called favourite or 'last' function is frequently implemented, by which the broadcast receiver can be directly tuned again to a specific

reception channel even though the broadcast receiver was in the interim tuned to one or more other reception channels.

The programs received by way of reception channels are often interrupted by commercial breaks. During these commercial breaks a majority of the users (in the case of television signal receivers, thus the viewers) for the duration of the commercial break changes from the originally selected program to another program which is received by way of another reception channel and is not, at this point in time, interrupted by a commercial break. However, from time to time the user must go back to the originally received program in order to check whether the commercial break is still continuing. The change to the originally selected program is readily possible due to the storage of the originally selected reception channel.

If the commercial break still persists, the user would, as a rule, like to change back to the reception channel selected in the interim. This, too, is readily possible because on change to the originally selected program the intermediately selected program is usually stored. If, however, the user selects a program different from the intermediately selected program because it could possibly be of greater interest for him or her, the data with respect to the intermediately selected program is lost. If the user in such a case would like to change back to the intermediately selected reception channel, this can be very laborious, depending on the number of channels which can be received, if the user has not noted the reception channel.

The task of the present invention consists in creating a possibility by means of which the user of the broadcast receiver can in simple manner also rediscover the intermediately selected program.

The task is solved for the tuning method in that at least one second selected reception channel is also stored in the main memory cumulatively with resepct to the first reception channel until the main memory is filled, that the second reception channel can be loaded into the tuning memory on the basis of a call-up command and that the further reception channel is stored in supercessionary manner in the main memory in the case of indirect channel presetting after expiry of a storage time of several seconds since the storage of the further reception channel in the tuning memory.

This is because not only the reception channel of the originally selected program, but also the reception channel of the program selected in the interim, can be loaded from the main memory into the tuning memory without, in the case of indirect presetting, prematurely overwriting original reception channels, which are preset only briefly, at the main memory, for example in the case of so-called zapping.

In the case of direct channel presetting, thereagainst, the further program channel can always be stored in supercessionary manner in the main memory.

If the number of reception channels stored in the main memory is two, the further reception channel preferably displaces one of the reception channels stored in the main memory only in the case of direct channel presetting. In the case of indirect channel presetting, the other of the reception channels stored in the main memory is displaced. This is because the one reception channel, by way of which the actually desired program is received, is almost always maintained.

In the case of indirect channel presetting the reception channels stored in the main memory can be exchanged after expiry of an additional time which, however, has to be substantially greater than the storage time, for example 5 or 10 minutes.

The reception channels have been stored in succession in the main memory. In the case of more than two stored reception channels it is therefore also possible that the further reception channel displaces the oldest of the stored reception channels. In principle this manner of procedure is in fact possible even with only two stored reception channels. However, in the case of only two stored reception channels the risk exists that the reception channel of the originally selected program is displaced.

If the main memory is divided into two part regions, at least two reception channels being able to be stored in at least one of the part regions and the further reception channel being stored in one of the part regions in the case of direct channel presetting and in the other of the part regions in the case of indirect channel presetting, it is possible to separately store the reception channels selected in different call-up modes. Within the part regions in that case the further reception channel moreover displaces the oldest of the reception channels stored in the respective part region.

The "memory" capability of the tuning method is still further increased if in the case of direct channel input and the other part region only incompletely filled with reception channels the displaced reception channel is stored in the other part region and in the case of indirect channel input and the one part region only incompletely filled with reception channels the displaced reception channel is stored in the one part region. A displacement overlapping part region does not, however, take place.

It has proved optimal in tests if in the case of a storage overlapping the part regions the displaced reception channel is stored in its new part region as the oldest of the reception channels stored in the respective part region.

If the further reception channel is called up from the main memory and is not the youngest of the reception channels stored in the main memory, in the case of entry of a supplementary condition the further reception channel is preferably stored as second youngest reception channel in the main memory or in a part region. This is because it is then ensured that the last reception channel stored to have priority further remains with priority in the case of intermediate calling-up of other reception channels stored in the main memory.

In addition, calling-up of the reception channels stored in the main memory can be carried out in different ways.

One possibility is that in the case of the first input of the call-up command one of the reception channels stored in the main memory is loaded into the tuning memory and in the case of further inputs of the call-up command in each instance another of the reception channels stored in the main memory is loaded, cyclically, into the tuning memory. This manner of procedure is particularly feasible when only a few reception channels are stored in the main memory. In the case of only two stored reception channels this represents only an exchange, which can take place by way of a single button. In the case of more than two stored reception channels there comes into question for this kind of channel call-up, in particular, a pressing or pressing down by way of a +/- button.

Alternatively or additionally it is possible that the reception channels stored in the main memory can be directly called up by the call-up commands. Here there comes into question, in particular, an input by way of a numeric keyboard of a control unit.

In the case of direct call-up of the reception channels a user guidance can be effected in the manner that on input of a display command the reception channels stored in the main memory are displayed on a display unit.

The user guidance is even better if there is displayed on the display unit, together with the reception channels stored in the main memory, how the reception channels stored in the main memory can be directly called up by the call-up commands.

If in the case of a further input of the display command the display of the reception channel stored in the main memory is extinguished again, the instantaneously selected reception channel must not be changed. It is thus possible, for example, in the case of erroneous input of the display command to cancel this again. It is also possible to display only the reception channels stored in the main memory in order to henceforth know which reception channels are at the time stored in the main memory.

If the number of reception channels is four, a particularly simple selection is possible if the call-up commands are associated with a cursor cross. In addition, in this case the association of the stored reception channels with the call-up commands can be displayed by the arrangement of information with respect to the stored reception channels on the display unit. If the number of reception channels is more than four, the call-up commands for the four reception channels last stored in the main memory can be associated with the cursor cross.

The number of additionally required control elements of the control unit is as small as possible if other commands for the broadcast receiver are input by way of the cursor cross in the normal case and the call-up commands for the four reception channels or for the four reception channels last stored in the main memory are associated with the cursor cross only through actuation of a specific button.

If more than two reception channels are stored in the main memory, user convenience for the broadcast receiver is enhanced if by actuation of a 'last' element the youngest or, in alternation, the youngest and the second-youngest of the reception channels stored in the main memory is or are called up.

Further advantages and details are evident from the remaining claims as well as from the following description of an example of embodiment in conjunction with the figures. In that case in schematic illustration:

Fig. 1 shows a television receiver as an example of a broadcast or television signal receiver,

Fig. 2 shows a flow chart,

Fig. 3 shows a further flow chart,

Fig. 4 shows a control unit,

Fig. 5 shows a display of a display unit and

Fig. 6 shows a further display of the display unit.

According to Fig. 1 a television receiver, as an example of a broadcast or television signal receiver, has an antenna terminal 1. An antenna 2 is connected with the antenna terminal 1. A plurality of television programs can be received by way of the antenna 2, wherein each television program corresponds with a reception channel. The terms 'television program' or simply 'program' and 'reception channel' are therefore used synonymously in the following.

Selectable reception channels are stored in a permanent memory 3. In order to receive a specific television program, a reception channel is preset at a control unit 4 for the television receiver by means of a control unit 5. The control unit 4 thereupon loads the preset reception channel into a tuning memory 6. The content of the tuning memory 6 establishes the tuning of a tuner 7. The television receiver is thus constantly tuned to the reception channel stored in the tuning memory 6. The program selected by reason of the tuning of the tuner 7 is then illustrated on a monitor 9 by way of a mixer 8.

The television receiver comprises a main memory 10 which in turn has a number of storage locations each for storing a respective reception channel. The number of storage locations is as desired. However, they amount to at least two.

When the television receiver is switched on, the main memory 10 is initially empty. On each change in the selected program, thus on each new input of a reception channel, the newly preset reception channel is initially loaded into the tuning memory 6. The reception channel previously stored there is displaced from the tuning memory 6. In addition, the newly preset reception channel is transferred from the tuning memory 6 into the main memory 10 and cumulatively stored there together with the previously stored reception channels until the main memory 10 is completely filled.

The reception channels stored in the main memory 10 can be called up from the main memory 10 on the basis of call-up commands, which are input by way of the control unit 5, and loaded into the tuning memory 6. Thus a 'retracing' of previously selected programs is possible in simple manner.

When the main memory 10 is full, on presetting of a further reception channel only a supercessionary storage of the further reception channel in the main memory 10 is possible. The further reception channel is, in particular, immediately stored in the tuning memory 6 in supercessionary manner. However, in order to prevent the content of the main memory from being overwritten in the case of each short-term change in reception channel, the further reception channel is stored by the control unit 4 in the main memory 10 only on entry of a storage condition. Checking whether the storage condition is entered or not is undertaken by the control unit 4. This thus acts as a comparison unit which effects storage in the main memory 10 of the reception channel stored in the tuning memory 6 only when the storage condition is entered.

The further reception channel can be preset at the television receiver by direct input (for example, the numerical keyboard of the control unit 5) or by way of a +/- button. In the case of direct input, the storage condition according to the example of embodiment is always fulfilled. In the case of input by way of a +/- button the storage condition according to the example of embodiment is fulfilled when a storage time of, for example, 10 or 20 seconds has elapsed since the last actuation of the +/- button.

If the number of storage locations is exactly two this procedure is preferably as illustrated in Fig. 2. The storage locations are, for the purpose of distinction, in that case denoted as E1 and E2 in the following.

According to Fig. 2 it is initially interrogated in a step 11 whether an input has been carried out by way of the control unit 5. If not, there is branching to a step 12. If yes, the input is executed in a step 13 and continuation is with a step 14.

In step 14 it is interrogated whether the content of the tuning memory 6 was changed. If not, there is again branching to the step 12. If yes, it is interrogated in a step 15 whether the content of the tuning memory 6 was changed by way of an input by a +/- button.

If the content of the tuning memory 6 was not changed by way of an input by a +/- button, the further reception signal was directly preset. In this case, not only the storage condition, but also the additional condition are fulfilled. The content of the one storage location E1 is then re-stored in the storage location E2 in a step 16. The previous content of the storage location 2 is displaced. The content of the tuning memory 6 is stored in storage location E1. There is then branching to the step 12.

If the content of the tuning memory 6 was changed by way of an input by a +/- button, a timer T is set to 0 and started in a step 17. There is then branching again to the step 12.

In step 12 it is interrogated whether the timer T has run down. If not, there is branching to the step 11. If yes, the storage time since changing the content of the tuning memory 6 by way of input by a +/- button has expired. The content of the tuning memory 6 is then stored in the storage location E2 in a step 18. The previous content of the storage location E2 is displaced. On running down of the timer T the storage condition, but not the additional condition, is thus indeed fulfilled.

If the number of storage locations is greater than two, the procedure is preferably as illustrated in Fig. 3. In Fig. 3 it is in that case assumed that the number of storage locations is four. The storage locations are, for the purpose of distinction, then denoted in the following as E1 to E4. A different number of storage locations, for example eight or ten, is, however, also possible.

The reception channels have been stored in succession in the main memory 10. In that case the last stored reception channel is stored in the storage location E1 and the first stored reception channel is stored in the storage location E4. The reception channel

stored in the storage location E1 is thus the youngest reception channel and that stored in the storage location E4 is the oldest.

Just as in Fig. 2, in Fig. 3 as well it is initially interrogated in the step 11 whether an input has been carried out by way of the control unit 5. If not, there is branching to the step 12. If yes, the input in step 13 is executed and continuation is with the step 14.

In step 14 it is again interrogated whether the content of the tuning memory 6 was changed. If not, there is again branching to the step 12. If yes, the timer T is set to zero and started in step 17. There is then branching again to the step 12.

In step 12 it is interrogated whether the timer T has run down. If not, there is branching to the step 11. If yes, the storage time since change in the content of the tuning memory 6 has expired. The storage condition is then fulfilled. In this case the content of the main memory 10 is actualised a step 19. For that purpose, the content of the memory location E3 is re-stored in the storage location E4, that of the storage location E2 in the storage location E3 and that of the storage location E1 in the storage location E2. The content of the tuning memory 6 is stored in the storage location E1.

The user convenience of the television receiver is even greater if the main memory 10 is divided into two part regions 10' and 10". According to the example of embodiment, in that case each part region 10', 10" has two of the storage locations E1 to E4 so that two reception channels can be stored in each part region 10', 10".

If now a reception channel is directly preset by way of the numeric keyboard, thus the storage condition and additional condition are fulfilled, the newly preset reception channel is stored in the storage location E1. The reception channel previously stored in the storage location E1 is re-stored at the storage location E2. If now the storage location E3 is still empty, the reception channel previously stored in the storage location E2 is re-stored at the storage location E3. If the storage location E3, thereagainst, has already been loaded from the storage location E4, the reception channel previously stored in the storage location E2 is lost. As long as the storage location E4 is also still empty, even two reception channels can be re-stored from the part region 10' into the part region 10" on direct channel presetting by way of the numeric keyboard.

If, thereagainst, a reception channel is directly preset by way of the +/- button and the storage time has elasped, thus only the storage condition is fulfilled, the newly preset reception channel is stored in the storage location E4. The reception channel previously stored in the storage location E4 is re-stored at the storage location E3. If now the storage location E2 is still empty, the reception channel previously stored in the storage location E3 is re-stored at the storage location E2. If the storage location E2, thereagainst, has already been loaded from the storage location E1, the reception channel previously stored in the storage location E3 is lost. As long as the storage location E1 is still empty, similarly two reception channels can be re-stored from the part region 10" into the part region 10' on indirect channel input by way of the +/- button.

The calling-up of the reception channels stored in the main memory 10 and the following loading into the tuning memory 6 can similarly be carried out in different ways depending on the respective design of the control unit 5. In the following, therefore, the control unit 5 is described in more detail initially in conjunction with Fig. 4.

According to Fig. 4 the control unit 5 comprises numeric buttons 20. A direct input of a reception channel is possible, in particular, by means of the numeric buttons 20. The control unit 5 further comprises four cursor buttons 21. By means of the two lateral cursor buttons 21, in particular, a setting of the volume is possible. By means of the upper and lower cursor button 21, in particular, an indirect input of a reception channel is possible by pressing up and pressing down. The upper and the lower cursor buttons 21 thus have the function of +/- buttons. The cursor buttons 21 together form a cursor cross. Finally, the control unit 5 also comprises a special button 22 and 'last' button 23.

The control unit 5 beyond that comprises still further control elements. These further control elements are not, however, of significance within the scope of the present invention and are therefore not illustrated in Fig. 4.

If only a few reception channels are stored in the main memory 10, for example two or four, the actuation of the special button 22 preferably represents an input of a call-up command. Then on the first input of the call-up command one of the reception channels stored in the main memory 10 is loaded from the main memory 10 into the tuning memory 6. On further inputs of the call-up command, in each instance another of the reception channels stored in the main memory 10 is loaded, cyclically, into the tuning memory 6.

Which of the reception channels stored in the main memory 10 is loaded as first one from the main memory 10 into the tuning memory 6 is, in principle, freely selectable. In particular, always, for example, the youngest or always the oldest stored reception channel can be loaded into the tuning memory 6. In the case of the storage method according to Fig. 2 it is also possible to always call up the reception channel stored in the storage location E1 or the reception channel last called up before the last program change by zapping.

Alternatively, it is possible that the reception channels stored in the main memory 10 can be called up directly. In this case the actuation of the special button 22 represents only an input of a pre-command for a call-up command. If up to four reception channels are stored in the main memory 10, the actual call-up command can also be triggered alternatively by actuation of one of the cursor buttons 21. If, for example, up to ten reception channels are stored in the main memory 10, the actual input command can be triggered by actuation of one of the numeric buttons 20. In addition, in a given case also the four reception channels last stored in the main memory 10 can be called up by actuation of one of the cursor buttons 21.

In the case of direct input of the call-up command it is possible to trigger this by actuation of the special button 22 with subsequent actuation of one of the numeric buttons 20 or one of the cursor buttons 21 without having to undertake further measures. In the case of several reception channels stored in the main memory 20, however, there exists a high probability that the user does not know exactly which reception channel is stored at which storage location. He thus does not know which of the numeric buttons 20 or which of the cursor buttons 22 he has to actuate in order to call up the reception channel desired by him or her. Preferably the reception channel stored in the main memory 10 can be displayed on the monitor 9.

If the special button 22 is actuated for the first time, this acts as a display command on the basis of which the reception channels stored in the main memory 10 are displayed on the monitor 9. In that case there is displayed on the monitor 9, together with the reception channels stored in the main memory 10, how the reception channels stored in the main memory 10 can be directly called up.

If, for example, up to ten reception channels are stored in the main memory 10, according to Fig. 5 there can be represented on the monitor 9 in the form of a table which program can be called up in the main memory 10 by which of the numeric buttons 20. If, for example, up to four reception channels are stored in the main memory 10, according to Fig. 6 there can be represented on the monitor 9 by a corresponding arrangement of the reception channels stored in the main memory which program can be called up in the main memory 10 by which of the cursor buttons 21. If the special button 22 is actuated again before one of the numeric buttons 20 or one of the cursor buttons 21 is actuated, then this acts as a cancellation command on the basis of which the display of the reception channels stored in the main memory 10 is extinguished again.

It is also possible on the first actuation of the special button 22 to represent the four reception channels, which were last stored in the main memory 10, in the arrangement of a cursor cross so that on actuation of one of the cursor buttons 22 the desired reception channel is called up. On a second actuation of the special button 22 then all ten reception channels stored in the main memory 10 are represented as a list or table so that on actuation of one of the numeric buttons 20 the desired reception channel is called up. On the third actuation of the special button 22 the list or table is then faded out again.

The display of the reception channels stored in the main memory 10 can in that case be carried out alternatively or additionally to the program which is received by way of the tuner 7.

Apart from direct and indirect presetting, a reception channel can obviously also be loaded into the tuning memory 6 by calling-up from the main memory 10. If the main memory 10 - as is the case in accordance with the example of embodiment - has at least four storage locations E1 to E4 and one of the reception channels stored in the storage locations E3 and E4 is loaded into the tuning memory 6, then on entry of a supplementary condition the content of the tuning memory 6 is stored in the memory location E2. The reception channel previously stored in the storage location E2 is re-stored at the storage location E3. If the reception channel stored in the storage location E4 has been loaded into the tuning memory 6, then beyond that the reception channel previously stored in the memory location E3 is re-stored at the storage location E4. In the result, the reception channel loaded into the tuning memory 6 is thus stored as second-youngest reception channel in the main memory 10 or in a part region 10'.

The supplementary condition can be, analogously to the storage condition, for example expiry of a time.

In the case of more than two reception channels stored in the main memory 10, a call-up of the stored reception channels is as a rule connected with an actuation of at least two buttons 20, 21', 22, namely actuation of the special button 22 and actuation of one of the buttons 20, 21. User convenience can therefore be increased by the 'last' button 23. On actuation of the 'last' button 23 the reception channel stored in the storage location E1 is directly loaded from the main memory 10 into the tuning memory 6. Alternatively, it is also possible to load the reception channel stored in the storage locations E1 and E2 in alternation into the tuning memory 6.

Reference Numeral List

1	antenna terminal
2	antenna
3	permanent memory
4	control unit
5	operating unit
6	tuning memory
7	tuner
8	mixer
9	monitor
10	main memory
10', 10"	part regions
11 - 19	steps
20 - 23	buttons
E1 - E4	storage locations
T	timer

CLAIMS

1. Tuning method for a broadcast receiver, particularly a television signal receiver,
- wherein at least two reception channels are preset in succession at the broadcast receiver by means of a control unit (5),
- wherein the reception channels are stored in supercessionary manner in a tuning memory (6) and cumulatively in a main memory (10) until the main memory (10) is filled,
- wherein one of the reception channels stored in the main memory (10) is loadable into the tuning memory (6) on the basis of call-up commands,
- wherein the broadcast receiver is tuned in correspondence with the respective reception channel stored in the tuning memory (6),
- wherein a further reception channel, which is stored in the tuning memory (6), is preset at the broadcast receiver and
- wherein the further reception channel, when it is indirectly preset at the broadcast receiver by actuation of a +/- button (21) of the control unit (5), is, in the case of the main memory (10) being filled, stored in supercessionary manner in the main memory (10) after expiry of a storage time of several seconds since the storing of the further reception channel in the tuning memory (6).

2. Tuning method according to claim 1, characterised in that the further reception channel, wherein it is directly preset at the broadcast receiver, is always stored in supercessionary manner in the main memory (10).

3. Tuning method according to claim 2, characterised in that the number of reception channels stored in the main memory (10) is two and that the further reception channel in the case of direct channel presetting displaces one of the reception channels stored in the main memory (10) and in the case of indirect channel presetting displaces the other of the reception channels stored in the main memory (10).

4. Tuning method according to claim 3, characterised in that in the case of direct channel presetting the one reception channel displaces the other reception channel within the main memory (10).

5. Tuning method according to claim 3 or 4, characterised in that in the case of indirect channel presetting the one reception channel and the other reception channel are interchanged after expiry of an additional time which is substantially greater than the storage time.

6. Tuning method according to claim 1, characterised in that the further reception channel displaces the oldest of the stored reception channels.

7. Tuning method according to claim 1, characterised in that the main memory (10) is divided into two part regions (10', 10"), that at least two reception channels can be stored in at least one of the part regions (10', 10") and that the further reception channel in the case of direct channel presetting is stored in one of the part regions (10', 10") and in the case of indirect channel presetting is stored in the other of the part regions (10', 10").

8. Tuning method according to claim 7, characterised in that the reception channels have been stored in succession in the part regions (10', 10") and that the further reception channel displaces the oldest of the reception channels stored in the respective part region (10', 10").

9. Tuning method according to claim 8, characterised in that in the case of direct channel presetting and the other part region (10") only incompletely filled with reception channels the displaced reception channel is stored in the other part region (10") and in the case of indirect channel presetting and the one part region (10') only incompletely filled with reception channels the displaced reception channel is stored in the one part region (10').

10. Tuning method according to claim 9, characterised in that the displaced reception channel is stored in its new part region (10', 10") as oldest of the reception channels stored in the respective part region (10', 10").

11. Tuning method according to claim 6, 8, 9 or 10, characterised in that the further reception channel is called up from the main memory (10), that the further reception channel is not the youngest of the reception channels stored in the main memory (10) and that the further reception channel in the case of entry of a supplementary condition is

stored as second-youngest reception channel in the main memory (10) or in a part region (10').

12. Tuning method according to one of claims 1 to 11, characterised in that in the case of the first input of the call-up command one of the reception channels stored in the main memory (10) is loaded into the tuning memory (6) and in the case of further inputs of the call-up command in each instance another of the reception channels stored in the main memory (10) is cyclically loaded into the tuning memory (6).

13. Tuning method according to one of claims 1 to 12, characterised in that the reception channels stored in the main memory (10) can be called up directly by the call-up commands.

14. Tuning method according to one of claims 1 to 13, characterised in that in the case of input of a display command the reception channels stored in the main memory (10) are displayed on a display unit.

15. Tuning method according to claim 13 or 14, characterised in that in company with a number of reception channels stored in the main memory (10) there is displayed on the display unit (9) how these reception channels can be directly called up by the call-up commands.

16. Tuning method according to claim 14 or 15, characterised in that in the case of a further input of the display command the display of the reception channels stored in the main memory (10) is extinguished again.

17. Tuning method according to claim 14, 15 or 16, characterised in that the number of reception channels is at least four and that the call-up commands for the four reception channels or for the four reception channels last stored in the main memory (10) are associated with a cursor cross (21).

18. Tuning method according to claim 17, characterised in that the call-up commands for the four reception channels or for the four reception channels last stored in the main memory (10) are associated with the cursor cross (21) only by actuation of a special button

(22) and that other commands for the broadcast receiver are otherwise input by way of the cursor cross (21).

19. Tuning method according to one of claims 6 to 18, characterised in that more than two reception channels are stored in the main memory (10) and that the youngest or alternatively the youngest and the second-youngest of the reception channels stored in the main memory (10) is or are called up by actuation of a 'last' element (23).

20. Broadcast receiver, particularly television signal receiver, with a permanent memory (3) for storage of selectable reception channels, with a tuning memory (6) in which one of the selectable reception channels, to which the broadcast receiver is to be tuned, can be stored, with a main memory (10) in which at least two received reception channels can be stored, with a control unit (5) by which the reception channels stored in the main memory (10) can be loaded into the tuning memory (6), and with a comparison unit (4) which in the case of indirect channel presetting effected by actuation of a +/- button (21) causes storage in the main memory (10) of the reception channel, which is stored in the tuning memory (6), after expiry of a storage time of several seconds since the storing of a reception channel in the tuning memory (6).

21. Broadcast receiver according to claim 20, characterised in that the comparison unit (4) in the case of direct channel presetting always causes storage in the main memory (10) of the reception channel stored in the tuning memory (6).

22. Broadcast receiver according to claim 20 or 21, characterised in that the main memory (10) comprises two part regions (10', 10") and that least two reception channels can be stored in at least one of the part regions (10', 10").

23. Broadcast receiver according to claim 20, 21 or 22, characterised in that the control unit (5) comprises a control element (22), by means of which the reception channels stored in the main memory (10) can be cyclically called up from the main memory (10).

24. Broadcast receiver according to one of claims 20 to 23, characterised in that the control unit (5) comprises control elements (20, 21), by means of which the reception channels stored in the main memory (10) can be called up directly from the main memory (10).

25. Broadcast receiver according to claim 24, characterised in that a basic function is associated with the control elements (20, 21) and that the control unit (5) has a specific element (22) by means of which the call-up commands for direct calling-up of the reception channels stored in the main memory (10) can be assigned to the control elements (20, 21).

26. Broadcast receiver according to one of claims 20 to 25, characterised in that the main memory (10) has exactly two memory locations (E1, E2) each for storage of a respective reception channel.

27. Broadcast receiver according to one of claims 20 to 25, characterised in that the main memory (10) has at least four memory locations (E1 to E4) each for storage of a respective reception channel and that the control unit (5) has four control elements (21) for direct calling-up of the four reception channels or the four reception channels last stored in the main memory (10), wherein the control elements can be formed as a cursor cross (21).

28. Broadcast receiver according to one of claims 20 to 27, characterised in that the control unit (5) comprises a 'last' element (23), by means of which the youngest or alternatively the youngest and the second-youngest of the reception channels stored in the main memory (10) can be called up.

29. Broadcast receiver according to one of claims 20 to 28, characterised in that it comprises a display unit (9), by means of which the reception channels stored in the main memory (10) can be displayed.

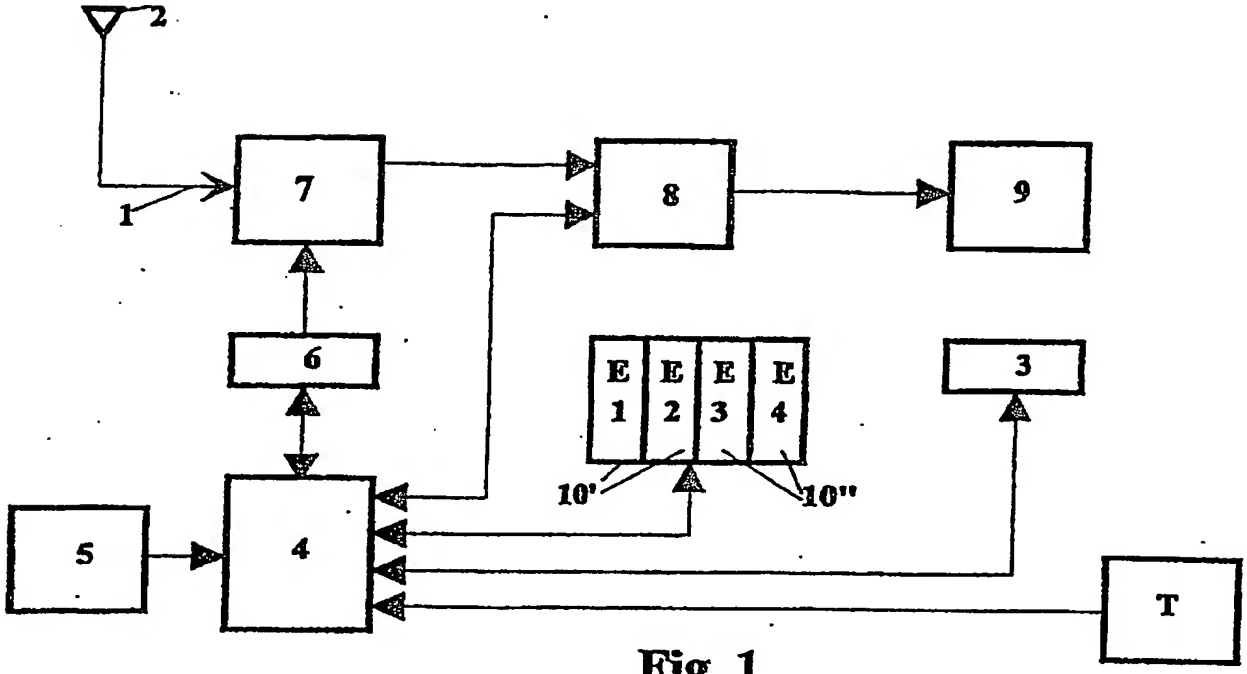

Fig. 1

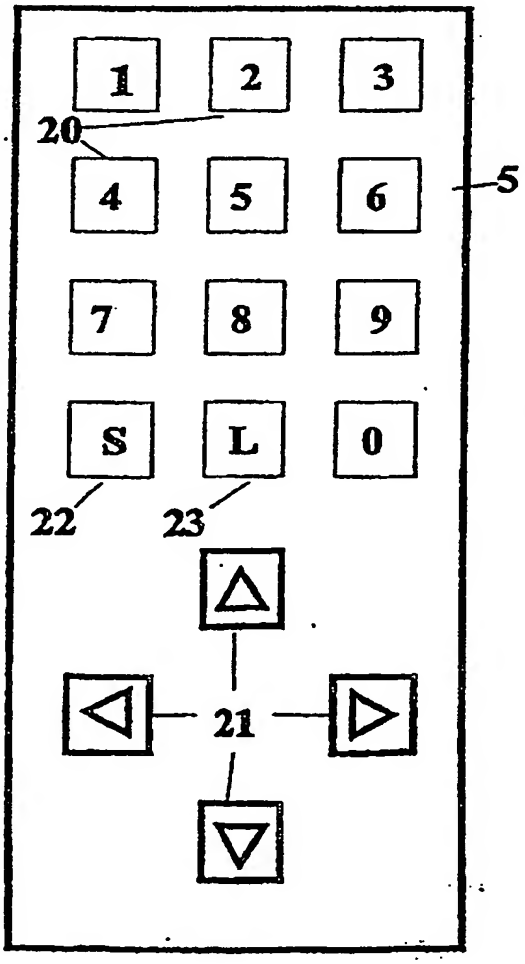

Fig. 4

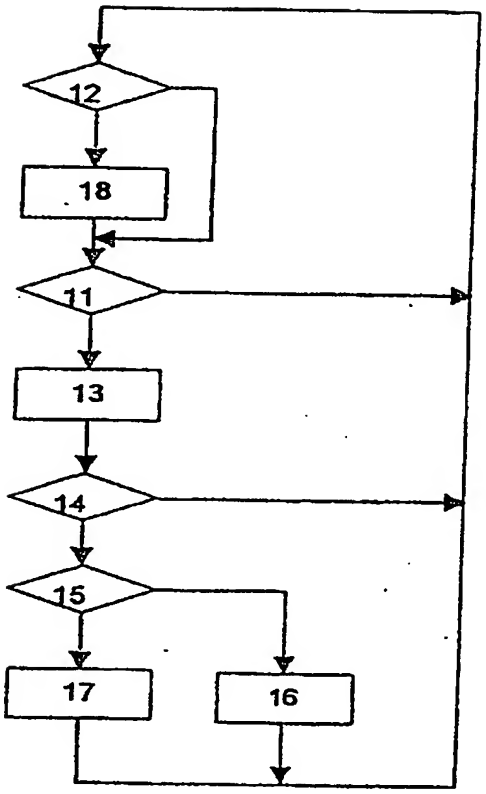

Fig. 2

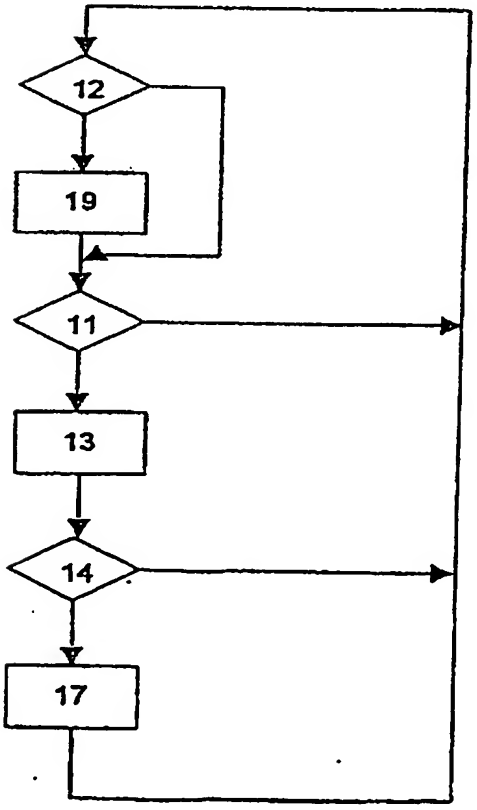

Fig. 3

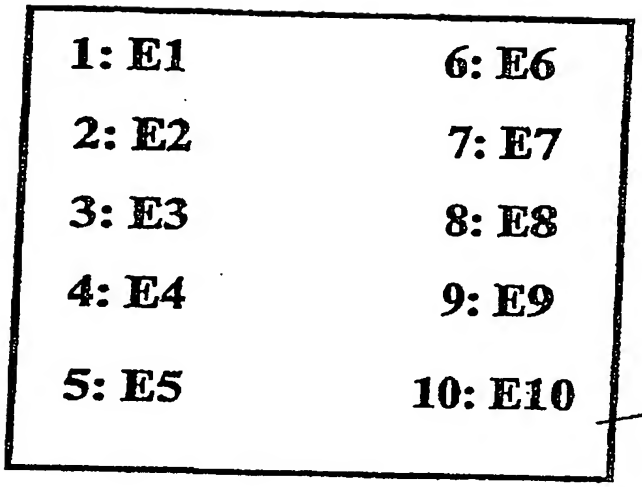

Fig. 5

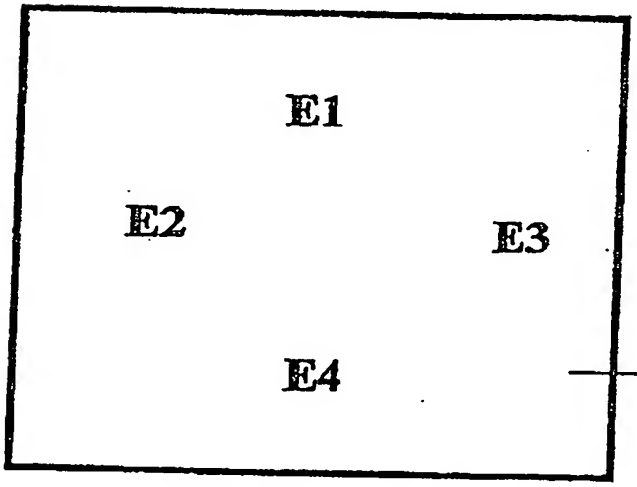

Fig. 6